

CLAIMS

What is claimed is:

1. A method of treating a Ras-mediated neoplasm in a mammal, comprising administering to the neoplasm a reovirus in an amount sufficient to result in reovirus-mediated oncolysis of cells of the neoplasm.
2. The method of Claim 1, wherein the reovirus is a human reovirus.
3. The method of Claim 2, wherein the reovirus is type 1.
4. The method of Claim 2, wherein the reovirus is type 2.
5. The method of Claim 2, wherein the reovirus is type 3.
6. The method of Claim 1, wherein the reovirus is a non-human reovirus.
7. The method of Claim 6, wherein the reovirus is a mammalian reovirus.
8. The method of Claim 6, wherein the reovirus is an avian reovirus.
9. The method of Claim 1, wherein more than one type of reovirus is administered.

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10. The method of Claim 1, wherein more than one strain of reovirus is administered.
11. The method of Claim 1, wherein the reovirus is a field isolate.
- 5 12. The method of Claim 1, wherein the reovirus is treated with a protease prior to administration.
13. The method of Claim 1, wherein the neoplasm is a solid neoplasm.
- 10 14. The method of Claim 3, wherein the reovirus is administered by injection into the solid neoplasm.
15. The method of Claim 13, wherein the reovirus is administered intravenously into the mammal.
16. The method of Claim 1, wherein the neoplasm is a hematopoietic neoplasm.
- 15 17. The method of Claim 16, wherein the reovirus is administered intravenously into the mammal.
18. The method of Claim 16, wherein the reovirus is administered intraperitoneally into the mammal.
- 20 19. The method of Claim 1, wherein the mammal is selected from the group consisting of: mice, dogs, cats,

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sheep, goats, cows, horses, pigs, and non-human primates.

20. The method of Claim 1, wherein the mammal is a human.

5 21. The method of Claim 1, wherein the neoplasm is pancreatic cancer.

22. The method of Claim 1, wherein the neoplasm is breast cancer.

23. The method of Claim 1, wherein the neoplasm is brain cancer.

10 24. The method of Claim 1, wherein the neoplasm is selected from the group consisting of: lung cancer, prostate cancer, colorectal cancer, thyroid cancer, renal cancer, adrenal cancer, liver cancer, and leukemia.

15 25. The method of Claim 1, wherein approximately 10^3 to 10^{12} plaque forming units of reovirus are administered.

26. The method of Claim 1, wherein the reovirus is administered in a single dose.

20 27. The method of Claim 1, wherein the reovirus is administered in more than one dose.

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28. The method of Claim 1, wherein the reovirus is administered to more than one neoplasm in the mammal.
29. The method of Claim 1, wherein the ras-mediated neoplasm is metastatic.
- 5 30. The method of Claim 29, wherein the reovirus is administered to a single solid neoplasm.
31. The method of Claim 29, wherein the reovirus is administered intravenously.
- 10 32. A method of treating a Ras-mediated neoplasm in a human, comprising administering to the neoplasm a reovirus in an amount sufficient to result in reovirus-mediated oncolysis of cells of the neoplasm.
33. The method of Claim 32, wherein the neoplasm is a solid neoplasm.
- 15 34. The method of Claim 33, wherein the solid neoplasm is pancreatic cancer.
35. The method of Claim 33, wherein the reovirus is administered by injection into the solid neoplasm.